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Original Communications.

A CASE OF POISONING WITH GELSEMINUM SEMPERVIRENS.

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On the night of December 5th, 1869, I was called in great haste to see Mrs. F., a former patient of mine, who was said to be dying. In the course of a few minutes I arrived at her bedside, and found her in the following alarming condition: Totally unconscious; breathing stertorous, and very imperfect; countenance of livid paleness; lower jaw drooping, leaving the mouth wide open; eyelids partially closed, and motionless; pupils moderately dilated; pulse 100 per minute, regular, but weak. On making hasty inquiries, I ascertained that she had been taking some medicine from a quack herbalist, who recommended it, in the choice English of that refined sect, as being able to "knock pain higher than a kite." Being satisfied that the case was one of poisoning with some narcotic, I attempted to administer an emetic of sulphate of zinc; but owing to the great difficulty in swallowing, I did not succeed in getting enough down to produce emesis. Friction and stimulants were then resorted to, and in about one hour and a half consciousness began to return. Treatment was continued, but recovery was not complete for several days, the principal complaint being of great prostration, and muscular weakness, particularly of the elevators of the lower jaw, and eyelids, and the muscles of the arms. After the return of consciousness, intelligible speech was at first only possible when the jaws were supported. The tongue also was stiff, and the voice thick and guttural. The patient stated that before she became unconscious objects appeared double, and then she grew by degrees completely blind. She thought, and naturally enough, that she was dying. Subsequently I saw the "doctor," and learned from him that he had given gelseminum sempervirens. He said he had prepared forty drops of the fluid extract in a bottle, and that, contrary to his directions, the patient had taken it all in the course of a few hours. I place no reliance upon his statement as to the amount, for he was most thoroughly frightened by the occurrence, but I have no doubt from the symptoms that gelseminum was the drug administered. The patient asserted positively that he gave her no specific directions as to dose, or intervals, but told her to take it when she had pain, and if on holding up her finger and looking at it, it did not appear double, she was all right, and could take more.

I satisfied myself, notwithstanding the denial of both parties concerned, that he had procured an abortion upon the woman, and gave the medicine as an anodyne after the expulsion of the ovum. It seemed at first as though the case would inevitably prove fatal; nor do I see now how recovery could have taken place without remedial interference.

I should not have been surprised at any time within an hour after my arrival to see the jerking respiration cease, and life become extinct.

The effect of the poison, it will be noticed, was to produce a general feeling of numbness and oppression, followed by double vision, loss of sight, paralysis of the muscles of voluntary motion, with complete insensibility to all external impressions. The paralysis of those muscles whose function it is to elevate was more peristent than that of any others. It is easy to explain the bad respiration by the condition of muscular paralysis which existed. There did not seem to be any direct sedative action of the poison upon the heart. In regard to this point, I am inclined to agree with Dr. Bartholow in the opinion that when the cardiac movements are depressed it is the result of insufficient respiration.*

I gave stimulants (brandy, am. carb., &c.,) on account of the alarming prostration, and because I did not know what else to do. Should another patient similarly affected come under my care, I should pur-

* Practitioner (London), Oct., 1870, p. 208.

sue the same course, with the addition, if it were possible at the time, of the use of galvanism, an agent found so beneficial in his own case by Dr. J. T. Main, of Unity, Maine.*

The notes of this case were taken chiefly at the time of attendance. Since then I have seen reports of several other instances of poisoning with the same drug, some of them fatal.† They all agree essentially with mine in the character of the symptoms presented. It is altogether probable that my patient had taken much more than forty drops of the fluid extract.

Hospital Reports.

BOSTON CITY HOSPITAL.

Surgical Cases in the Service of D. W. Cheever, M.D. Reported by Mr. C. B. Belt, House Surgeon.

Case I.—*Lupus; Galvano-Cautery; Disease Retarded.*—P. H., æt. 50. Fifteen years ago, disease began over the left ala nasi, and increased rapidly. Has been treated at various institutions. Was at the Massachusetts General Hospital, where a plastic operation was performed. The disease has extended rapidly, since the operation, towards the eye; has destroyed entirely the ala nasi, leaving a cavity that extends upwards and backwards. The disease has also affected the *right* ala nasi. Nitrate of silver was freely applied and continued every other day, but without avail. He was also put upon cod-liver oil.

After a fair trial of the nitrate of silver, the galvano-cautery was applied, under ether, and the wound dressed with lin. calcis. The patient did not suffer so much pain after the galvano-cautery as after the nitrate of silver. The cauterization was followed, apparently, by a retardation of the disease.

Two weeks following the operation, the disease was found to be again advancing, with renewed vigor, towards the right side of the nose. The patient was again etherized, and the fumes of the ether having been allowed to pass off, the nose was again touched freely with the galvano-cautery, and a pendulous flap, which was cumbersome, was removed. Cold-water dressing. The operation was followed by little pain. After four weeks the patient was discharged, "relieved," the edges of the disease presenting healthy granulations; no new tubercles or ulcerations having, as yet, appeared.

Case II.—*Compound Fracture of the Radius; Recovery.*—Richard L., æt. 32. From the explosion of a copper retort, a portion struck the patient's left arm and produced a compound fracture at the lower third of the radius, and also caused considerable laceration of the surrounding tissues. No large vessel was injured. It was found impossible to reduce the protruding part of the radius, without sawing off a portion three-fourths of an inch long. A counter opening was made upon the dorsal aspect of the arm and a seton passed through. As there was considerable contusion and swelling of the whole arm and hand, it was also thought advisable to make an incision upon the dorsal aspect of the hand. Arm laid upon a straight splint, and cold water frequently applied. Considerable swelling and pain subsequently. A large poultice was then ordered. In a week several sloughs had separated, and the condition of the patient was excellent. In three weeks the arm had got into a much better condition; less pain and suppuration, and a splint was constructed to abduct the arm and draw the ends of the radius apart, thereby making it quite straight, and giving an opportunity to fill the gap with new bone. Patient steadily improved, and, with the exception of an occasional increased suppuration from any over-exertion, the compound opening granulated well and rapidly filled up. At the end of thirteen weeks the hand had so far recovered that he could use the arm with considerable freedom, and he was discharged.

Case III.—*Fracture of Cervix Femoris; Recovery.*—Catharine S., æt. 47, slipped upon a piece of ice, and fell from three steps, coming with considerable force upon her right hip, causing an inability to walk. Remained at home without treatment three weeks. On entering the hospital, there was a characteristic eversion and one and a half inch shortening. Under ether, the trochanter major rotated freely with the shaft of the femur, and a distinct crepitus was felt within the joint. Several bed-sores had formed over the sacrum. Seven pounds extension and a long outside splint were applied. As the patient had incontinence of urine, it was with considerable difficulty that the limb was kept in a state of quietude. Everything went well, with the exception of an œdematous condition of the left leg. At the end of six weeks all the

* Boston Medical and Surgical Journal, April 15, 1869.
† American Journal of Pharmacy, Jan., 1870. American Journal of the Medical Sciences, Jan., 1867.

apparatus was removed, and the union considered to be good; slight eversion, and the limb could be rotated with but little pain; has three-fourths of an inch of shortening; has recovered control of the bladder. At the end of eighteen weeks she was discharged, well.

Case IV.—*Re-fracture of the Patella.*—Peter N. K., æt. 37. Entered with a re-fracture of the right patella. Four months before entrance he fell upon the ice and broke his patella. Was at the Marine Hospital, Chelsea, four months, and the day following his departure he again slipped, and separated the fragments. The leg was put upon a Goodwin's splint; but this being uncomfortable, it was placed upon a long and wide ham-splint, and the foot and leg raised by sand-bags. A figure-of-eight bandage was applied. The fragments were separated three inches at entrance. As there was considerable swelling of the knee, the parts were not brought into close apposition. In a few days the swelling became somewhat reduced, and the fragments were brought within one-fourth of an inch of each other, by "Sanborn's method."

Two weeks following its application, an abscess formed at the inner side of the joint, but not penetrating the sac. Incisions were required, after which the knee began to improve, the fragments being in good position; but as the firm apparatus had to be left off, the separation was somewhat increased. After all tenderness had disappeared, a figure-of-eight bandage was applied, and the limb put upon a long posterior splint extending from the foot to the perinæum, and raised above a horizontal position. Union was ligamentous, as at the first fracture. Finally, a six-tail bandage was applied, and it remained on when he left the hospital.

Re-fracture of the patella, or separation of fragments by slipping or falling, seems to be a not infrequent sequence of transverse fracture of that bone.

Case V.—*Indolent Ulcer; Persistency; Relief by use of Donovan's Solution.*—M. K., æt. 42. Entered for a long, deep and irregular excoriated ulcer, just below the right patella, six inches long by two inches wide, and of one year's duration. Has always been a strong, healthy man; never had syphilis. Charcoal poultice and ham-splint. The following day a deep pocket was slit up, and the ulcer began to improve under poultices and chlorinated soda wash. At the end of a month it became indolent, excavated and gangrenous. Under ether, the ulcer was freely touched with bromine; charcoal poultice. Tinct. ferri chloridi was given internally. When the sloughs from the bromine came off, patient was again etherized and bromine was again applied. This was followed by a healthy condition of the parts. The poultice was in a few days omitted, and a nitric acid lotion used. The ulcer having relapsed, the patient took corrosive sublimate, and subsequently an opium treatment—three grains per diem—without avail. Finally, the liq. arsenici et hydrargyri iodidi, five drops thrice daily, was given, and followed by a decided improvement. One week following, the dose was increased one drop. In two weeks, the dose was increased to eight drops thrice daily; the week following to nine drops; in four days to ten drops. The patient now had some of the characteristic symptoms from arsenic and iodine, as diarrhœa, pain in the bowels and coryza. Medicine was omitted.

Five weeks following the administration of the Donovan's solution, the ulcer was quite closed, but two weeks afterwards there were indications of a re-opening, and in two days it had re-opened at two points. The Donovan's solution was resumed, in five-drop doses twice a day, and gradually increased to fifteen drops a day, with marked benefit. Finally discharged, relieved.

Case VI.—*Chronic Disease of Knee; Amputation; Recovery.*—Thos. H., æt. 50. Has had chronic thickening, inflammation and ulceration of the left knee for five years. Being able to creep about only in the most painful manner, on crutches, and wasted by excessive pain, he finally consents to an operation.

There is a sinus, three inches below the patella, running up towards the knee, but a probe could not be passed through it into the joint. By cutting down upon the end of the probe under the skin, where it projected by the side of the patella, it was found that a second sinus ran at right angles to the first, into the knee joint, and the condyles of the femur were felt, denuded and roughened.

As excision was obviously out of the question, owing to his habits and years, he consented to amputation. The limb was removed just above the knee, by skin flaps; and he made a slow, but good recovery, leaving the hospital, at the end of eighty-two days, reëstablished in health, and free from suffering.

Surgical Cases in the Service of Wm. Ingalls, M.D. Reported by Mr. C. B. Belt, House Surgeon.

Case I.—*Multiple Injuries from a Powder Explosion.* August 19th.—J. R., la-

borer, 35. "Preparing a blast," it exploded, throwing him backwards, stunning him, and also shattering the ring, middle and little fingers of the left hand, besides closely sprinkling the tissues with the coarse powder. At the metacarpo-phalangeal articulations the middle and ring fingers were removed, and so also was the little finger, with the end of the metacarpal bone; there was but little hæmorrhage, and no ligatures were required.

The face and arms were thoroughly filled with the powder. Both eyelids were swollen and bruised, the left eye being entirely gone, and perception of light being doubtful by the right, to himself; to us, it was evidently destroyed.

At inner aspect of left thigh, there was a rather deep wound, filled with powder.

Congenital inguinal hernia of right side exists.

The stumps were dressed with cool water compresses. There was thorough syringing under eyelids, and a solution of atropine—grs. ij. to ʒi. of water—applied. Poultice to arm, face and thigh.

On the 21st, the patient was comfortable, and had less swelling of eyelids and face. He cannot discern the light; the left iris is protruding, and the eyelids suppurating freely; syringing required every two hours. The wounds are doing pretty well.

22d.—Eyesight considered irretrievable by Dr. Williams, who advised a continuance of the treatment. The appetite and general condition are improving. He thinks he can discern light a little, but cannot say with certainty that it is so. There is limited sloughing of the wounds, and but little pain.

30th.—Wounds clean and granulating well, that of thigh quite healed. Suppuration from eyelids continues. Now thinks he has certainly lost his sight.

Sept. 6th.—Hæmorrhage from lids of right eye, but they are less swollen. Face cleaning and resuming its natural size. Wounds granulating healthily.

17th.—Improving; walks out of doors.

24th.—Discharged, in an improved condition; the eyes filling out the lids, giving them a fair appearance.

Case II.—*Contusion over Hips and Nates; Effusion of Blood; Incisions; Recovery.* (Aug., 1870. Service of Drs. Thaxter and Ingalls.)—Joseph C., æt. 35, teamster. Fell from a heavily loaded wool caravan; the hind wheel was supposed to have crossed his hips. On his being brought to the hospital, no fracture was detected. There was swelling and tenderness over the right hip and nates, but no ecchymosis at this time. In three days there was a large surface of ecchymosis all over the lumbar and sacral regions, more towards the right side, with tendency to fluctuation. On the fourth day, an incision was made over a distinct fluctuating tumor, situated over the sacrum, evacuating ʒiv. bloody serum. Compress. The day following, another incision was made over a similar tumor, upon the inner side of left nates, giving exit to ʒviij. bloody serum. The wounds were kept open by tents of charpie.

Suppuration went on well, and the sacs gradually filled up by the aid of syringing and compression. He was not confined to his bed during the whole time, and there was very little sympathetic irritation from the suppuration or injury, and at the end of five weeks he was discharged, with the wounds almost well, a small granulating surface requiring a touch of nitrate of silver.

Case III.—*Comminuted Fracture of the Shoulder; Colles's Fracture; Scalp Wound.* Aug. 1st.—Wm. C., æt. 35, painter. Fell from a staging, 35 feet from the ground, striking his left shoulder upon a hard gravel walk. Walked into the accident room two hours after the accident, when, under ether, the parts were found to be badly shattered. There was a fracture of the neck of the scapula through the glenoid fossa, also of the surgical neck of the humerus, and of the end of the acromion process; the clavicle was uninjured. There was a dislocation of the head of the humerus, sub-coracoid, and a stretching of the integument over it, but the skin was intact.

The parts were brought into place as well as possible, and the shoulder was ordered to be covered with ice-bags, which were to be taken off for a half hour occasionally. The patient had severe pain for two days, relieved somewhat by atropia and morphia, one-sixtieth and one-third gr. subcutaneously. Patient remained perfectly quiet one week, when an attempt was made to bring the parts into better position; there was partial success.

The Colles's fracture of the same arm was a disagreeable complication, and increased the pain and discomfort. A bandage about the body kept the arm to the side, and in the second week the man was able to get out of bed.

A small scalp wound, which healed by first intention, should be mentioned. In two weeks the patient walked about the

ward, and on the corridor, but he had an intermittent sharp pain in the shoulder and wrist.

At the end of seven weeks, without any severe drawbacks, he was discharged, having a slight use of his arm. He could get his hand to his mouth.

Case IV.—*Syphilitic Ulcers; Iodoform Treatment; Chancroids.* August 1st.—Dennis C. æt. 26, laborer. Had the usual course of the disease; "sores" on penis; suppurating swelling in groins, the cicatrices of which gave evidence of the nature of an ulcer upon the shin, one and one fourth of an inch by three fourths of an inch deep, with dirty base, and irregularly inverted edges; there were three large chancroids behind the corona glandis. An iodoform ointment—

℞. Iodoformi, ʒss.;
Spts. vini rect., q. s.;
Adipis suillæ, ʒviiss. M.

was applied to the ulcer. Ten grains of iodide of potassium were given, thrice daily. The chancroids were touched freely with nitrate of silver. The ulcers began immediately to improve, as well as the chancroids, which were occasionally retouched. On the 30th inst., was discharged, well.

Case V.—*Urethral Calculus; Retention of Urine; External Urethrotomy.* Aug. 13th.—Michael H., æt. 17, clerk. Has always lived in Boston, and drank the Cochituate water. Two months since had severe pain in right side, an occasional pain in the same region since. Never had any difficulty in micturition preceding yesterday, when he began to have it by passing the urine *guttatim*. There was pain over pubes, extending to the end of the penis. Passed a small amount of urine.

After passing a severe night, and becoming unable to micturate, he applied to a physician, who attempted to catheterize him, and, after several attempts, failed, and sent the patient to the hospital.

On entering, had not passed his urine for ten hours, when on passing a small elastic catheter it came in contact with a solid about five inches from the meatus, and by an external examination it was found to be a solid substance as large as a bean, apparently just behind the scrotum. The bladder was distended half way up to the umbilicus.

Upon the arrival of Dr. Ingalls, an attempt was again made to introduce an instrument, under ether; but all attempts failing, an incision was made over the tumor, a staff having been introduced down to the obstruction, directly in the median line, and by manipulating with the finger within the anus the obstructing substance was removed, followed by a small amount of hæmorrhage. The substance proved to be a calculus one-half by three-eighths of an inch in diameter, and weighing gr. xij., consisting upon its outside of uric acid in granular bodies sparsely scattered over its surface. On section it was seen to be made up of crescentic rings of uric acid and phosphate of lime. Uric acid nucleus. The wound contracted to a small one after the removal of calculus. A silver catheter was introduced through the urethra, and ʒxx. of urine drawn off. The catheter was allowed to remain. The following day urine flowed freely through the catheter, and the patient was comfortable. On the 15th, urine flowed through the wound; the catheter was moved backwards and forwards frequently. On the 16th, the catheter was withdrawn, it having been retained sixty-six hours.

17th.—About one half the urine came through the wound, the remainder passed freely through the natural passage; there was no pain, and the wound looked well. Less and less the urine came through the wound, and at the end of six weeks it had entirely closed.

Case VI.—*Syphilitic Rupia; Rapid Improvement; Iodoform Ointment.*—Mary W., domestic, coitus with but one man. Aug. 6th.—A year ago had sores about her vulva, and swelling in the groins, but no "sores" in this latter region. Seven months ago she gave birth to a living child.

Six weeks ago, small white blisters appeared upon her forehead, which broke and crusted over. Soon they appeared upon the legs, body and arms, and the characteristic, conic, layers of crusts were largest upon the thighs, removing one of which there was presented a deep, dirty base, with the greyish ulceration, the edges of which were irregular and inverted.

The crusts were rapidly removed on the following day, poultices having been applied, and the following ointment was ordered, to be applied freshly thrice in the twenty-four hours:

℞. Iodoform, ʒss.;
Alcohol, q. s.;
Adipis suillæ, ʒviiss. M.

Also, potass. iodid., gr. v., thrice daily, internally; in a few days this was increased to ten grains thrice daily.

In three weeks the ulcers had improved and contracted most rapidly and decidedly. Against advice, she went away.

Case VII.—*Fracture of the Ribs and Clavicle.* Aug. 2d.—Michael D., æt. 35, laborer. Had a bank of earth fall upon him, knocking him down, and breaking the 1st, 2d, 3d, and 4th ribs of the left side outside of the sterno-costal articulations. No hæmoptysis nor cough. The left clavicle was fractured at its middle. The treatment was mainly postural. Morphia given *p. r. n.* The patient had pleuritis, with small amount of effusion. After four weeks, lying constantly upon his back with a pillow under his shoulder, the ribs united quite firmly with some irregularity. The clavicle presented some deformity, but there was a good result for so severe an accident. In six weeks he was discharged, well.

Case VIII.—*Fracture of the Femur; Good Recovery.* Aug. 2d.—John L., æt. 16, clerk. Was run over by a light express wagon, having been thrown from a seat under the wheel, which went over his left thigh. Under ether, the femur was found to be fractured transversely at the junction of the middle and lower thirds. There was eversion, and one-half inch shortening, and but slight swelling. A long side splint being adjusted, extension was made by a weight of ten pounds, the foot of the bed being elevated, and a good position was maintained, even during the first four days of restlessness and pain. The dressing was continued for four weeks, when it was removed, and the callus was felt to be rather large; but there was good restoration, and only one-quarter of an inch shortening. He by degrees regained the use of his limb.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
CHARLES D. HOMANS, M.D., SECRETARY.

Dec. 12th.—*Malformed Heart; Congenital.*—Dr. Cotting reported the case, and Dr. Swan showed the specimen. The child lived to be eighteen months old; was always feeble, sometimes discolored quite blue, and troubled with dyspnœa in paroxysms amounting occasionally almost to convulsions; it was œdematous towards the last; its expression was very sad, a smile seldom lighting up its countenance.

Dr. Swan gave the following account of the autopsy:

Body tolerably well nourished. Slight redness of lower portion of right side of face, and marked lividity beneath the finger-nails; no external defects in development. No marked, if any, œdema of lower extremities. A small amount of serum in all the serous cavities of chest and abdomen.

Heart large and rounded in its anterior aspect; somewhat flattened antero-posteriorly; consisting mainly of a greatly enlarged right ventricle, greatest diameter three inches; the left ventricle existing as an entirely posterior and somewhat excentrically placed muscular tumor or elevation, with a diameter of one and a half inches, and forming no part of the rounded indistinct apex. Wall of right ventricle more than twice the thickness of that of left, and its fleshy columns proportionally larger and stronger.

Right ventricle. Four openings at upper part. *First*, anteriorly, that of the pulmonary artery. This artery is small and thin-walled, and communicates by its own branches with the lungs, entering each by a triple division. It does not at any point communicate with the aorta. At its root the orifice is two-thirds or three-fourths closed by a membranous pouch or diaphragm, single in appearance, and little if at all valvular in action, probably representing two semilunes; whole diameter of pulmonary artery at orifice, one-quarter of an inch. The *second*, most posterior orifice, is that of the tricuspid valve. This communicates with the right auricle, and has a diameter of three-quarters of an inch. Its delicate valves appear to be perfect. The *third* opening is that of the aorta, situated posteriorly and to the right of the pulmonary orifice. It has a diameter of five-eighths of an inch, and its valves are normal. The branches and communications of the aorta, aside from its abnormal origin, are normal, if we except one doubtful minute opening at the *site* proper for the ductus arteriosus, belonging to a vessel cut off close to its root, corresponding to which nothing could be found in the pulmonary artery. The fourth opening is interventricular and about one-quarter of an inch in average diameter. It is somewhat irregular in shape, is on a level with, between and to the left of those of the pulmonary artery and tricuspid orifice, and splits the upper extremity of a strong fleshy column in a somewhat valvular manner.

The small cavity of the left ventricle has two openings; the interventricular just mentioned, which pursues, so to speak, an upward and forward direction towards, and upon the prolonged axis of, the transposed aortic orifice and aorta; and the mitral, which is small—having a diameter of

about a quarter of an inch—opens from the small left auricle and is guarded by delicate, normal-looking and apparently efficient valves.

The right auricle is large, and occupies a right and posterior position. On its posterior aspect are two large openings for the venæ cavæ (the veins having been cut away), about an inch apart, on about the same horizontal level and on a vertical line with the right and left limits of the left ventricle. This auricle communicates with the right ventricle by the tricuspid orifice, with the left auricle by the foramen ovale, and receives freely the right pulmonary veins.

The left auricle, by far the smaller and thinner-walled, has a position as far posterior as that of the right, but it lies under and to the left of the latter, extending again anteriorly upwards to receive the left pulmonary veins. The foramen ovale is a vertical slit quarter of an inch long, guarded by a thin but ample flap with crescentic margin and posterior position, upon the side of the right auricle.

The comparatively large development of the whole right side of the heart shows in itself where the work was mainly carried on. Tracing the course of the circulation in detail leads to the same conclusion. All the inlets may properly be said to terminate in the right ventricle, all the outlets to proceed from that ventricle. They are facts of secondary importance to the circulation that the auricles each drained its lung, and that there may or may not have been interauricular transmission. In any case, all the systemic and all the pulmonary blood must have come to the right ventricle and thence, in a more or less mixed condition, have been returned to the two systems—too good for the lungs, too poor for the body, but in limited quantity to the former and in abundance to the latter. The history of the case alone is indicative of defective and difficult circulation. The dropsies of the serous sacs and the rather large heart point in the same direction.

The causes may reasonably be considered as, 1st, the stenosis of the pulmonary artery; 2dly, the mixed character of the blood, by which it must have been imperfectly adapted either to the purposes of nutrition or healthy pulmonic or other function. In accordance with certain recent belief, such blood must have been everywhere more or less impeded in its course through the minute arteries, whose muscular walls, under the intelligent guidance of the vaso-motor nerves, regulate, like "stop-cocks," the proper supply of blood for each part.

Lungs healthy, rather dry; when inflated, quite light colored. Liver large, but perhaps not beyond the proportionate size at this age. Spleen large. Its anterior edge was by vertical fissure converted into a pendant digital process. Small supernumerary spleen. Kidneys large, showing traces of lobulation.

Dec. 12th.—*Naso-pharyngeal Polypus removed by turning down the Nose; Tracheotomy; Recovery.*—Dr. Cabot reported the case, which was drawn up by Mr. Blodgett, surgical house-pupil at the Massachusetts General Hospital.

B. F., born in Ireland, aged 40 years, by occupation, bootmaker. Twenty years ago came to America, and had been perfectly well previous to that time. Twelve years ago began to be troubled by nasal polypi, which were operated upon at various times by evulsion through the nares, the last time eighteen months ago.

There was a growth among the bones of the face, which, starting from an obscure origin, had permeated every available part of the cavity of the nose, appearing in both anterior nasal orifices and hanging into the pharynx. Respiration was impossible through the nose, and speech was very much obstructed.

A probe may be passed into anterior nares, and carefully under the growth into the pharynx, and by manipulation may be made to enucleate it from some of the immediate parts.

The right side of the nose was pressed outward by the tumor, at about its middle, giving it a crooked and angular appearance. It was not inflamed nor swollen. The tumor appeared at the upper and inner part of the right orbit, where it projected in the space normally occupied by the eye, that organ being crowded outward and a little downward, so as to cause its palpebral opening to have a direction nearly obliquely upwards and outwards. The position of the tumor seemed to show that its point of entrance into the orbit was from the ethmoid bone. The normal relative axis of the eyes was destroyed, producing divergent strabismus.

The operation was performed by Dr. Cabot, Nov. 26th, 1870, in the following manner.

An incision was first made into that portion of the growth projecting into the orbit, which, upon being incised, gave exit to quite a considerable amount of pus of a fœtid odor. An incision starting from the bridge of the nose was then carried so as to become continuous with the one in that

portion of the growth contained in the orbit, and was then continued down the side of the nose as far as the lower border of the naso-maxillary suture. Another incision was carried from the origin of the first to a corresponding point on the other side of the nose, so as to have rudely the form of ∩, the apex being the part over the naso-frontal suture.

The nasal bones were then sawn in about the line of the lateral nasal sutures and the nose turned downward over the mouth, the cartilaginous portions of the alæ being the hinge upon which the body of the nose turned.

Portions of the polypus were now removed with forceps and scissors, and proved to be somewhat vascular, so that quite a severe hæmorrhage was set up. At this stage of the operation patient was observed to be breathing badly, and his head was tilted forward to allow the blood to run out of his mouth. After a short time he was better and the operation was resumed, but almost immediately patient choked and ceased to breathe, in spite of the vigorous efforts of those around to assist respiration. Dr. Cabot performed tracheotomy by an incision extending from about the second to the fifth tracheal ring, and a silver tracheotomy tube was inserted and held by the fingers. There was no attempt at respiration. The trachea was full of dark blood, which slowly welled up from the lower part of the incision and through the tube. Artificial respiration was at once started, which at first only caused the expulsion of a mass of blood at each expiratory movement; but after some minutes patient made an evident gasping effort, and in a few minutes more really inspired through the tube. He soon made very strong expiratory efforts, and threw out a large amount of fluid blood and coagula.

He was now laid straight, with feet elevated and head depressed. All the portions of the tumor were removed with scissors, forceps, &c., and great pains were taken to remove all the disease from every part of the nasal cavity, sphenoidal cells and orbit. The pulse was now very weak, and, at about every fifth beat, it intermitted for about the time occupied by three beats.

Ammonia, largely diluted, was given, patient swallowing it. His condition was not much improved by this, and after about fifteen minutes an ounce of brandy was injected into the rectum. This was followed by hardly any improvement of symptoms, the patient being cold and his fingers livid; his skin was covered by clammy perspiration. A half hour after (3, P.M.), another injection of brandy was given and patient removed to ward. Pulse 48, intermittent, weak. At 4, P.M., tube removed from trachea and incision sewed up. Some infiltration of cellular tissue with air. Pulse 60, stronger. 10.30, P.M.—Pulse 80, strong and regular.

Nov. 27th.—Doing nicely. Pulse 100, strong. Liquid diet.

30th.—Doing well. Acid. carbolic. to wound.

Dec. 10th.—Doing extremely well. No pain or trouble in nose or throat.

14th.—Breathes through nose perfectly. Incision entirely healed. No discharge from nose.

Dr. J. C. Warren examined the tumor, and made the following report of the microscopical appearances:—

The growth, when first removed, was soft and pulpy, and at some points had the appearance of the fibro-cellular or myxomatous structure. It was covered externally with ciliated epithelium. Sections of a portion hardened in chromic acid showed the presence of numerous acini lined with columnar epithelium in the interior. The intervals between the acini consisted of fibrous structure quite rich in cells. It presented, in short, the appearance of a *glandular polyp*.

Dec. 28th.—*Acute Disease of the Colon, resembling commencing Gangrene; Gall Stones.* Dr. Minor reported the case, and showed the specimen.

The patient was a gentleman, 81 years old, whose general health had always been good, though he had been subject to occasional attacks of cholera morbus in summer, and for many years had varicose veins of the legs. In 1863, he had a severe attack of pain in the right hypochondrium, with all the other symptoms of the passage of gall stones, including jaundice, and followed by some tenderness in the region of the liver. For several years he had been troubled with frequent desire to micturate, which increased much of late; and during the last few months he had an inguinal hernia of the right side, which was easily kept up by a truss. Dec. 21st, being as well as usual, he dined out. The next day, which was extremely cold, he drove down town, and spent some hours in his office, where he was attacked with severe pain in the left flank. There was much tenderness in a spot just over the crest of the ilium; a little vomiting; pulse not over 80; no rigor. The pain was made endurable by small doses of morphia, injected under the

skin, and no change took place in the symptoms, except that he slowly sank, and died in 36 hours from the first attack. There were no symptoms referable to the hernia.

At the autopsy, the large intestine was greatly distended with gas. At the beginning of the sigmoid flexure of the colon, for a length of about 14 inches, the peritoneal surface was of a dark red or chocolate color, and covered with small flakes of recent lymph. The greater portion of the corresponding mucous coat was covered with large patches of a dark gray, or blackish color, apparently resulting from a new formative process in the mucous membrane itself. Other parts were covered with a thin blackish pellicle, which could be removed in a layer in some places, while in others it was so firmly attached as to resemble the disorganized mucous membrane itself, from which it floated up in water, as a kind of slough. Considerable healthy mucous membrane was still to be seen. There was no obstruction of the intestine. Elsewhere, the peritoneum covering the intestine was in places redder than usual, but not covered with lymph. The bladder was nearly empty, small, the walls thick, and the lining membrane corrugated. The prostate was not large, and projected but slightly into the bladder, the orifice of the urethra being large enough to admit the finger. The gall-bladder was everywhere adherent to the liver, and contained several hundred calculi, of which five were as large as filberts, and the rest varied from the size of a pea to that of a small shot. The kidneys appeared healthy, with the exception of a small cyst in each.

JAN. 9th, 1871.—*Ulceration and Perforation of Gall-bladder.* The case was reported and the specimen shown by Dr. LYMAN.

E. T. Jr., æt. 21. In January, 1869, two years since, had a severe attack of biliary calculus, lasting a week. In June following, he had another attack, with jaundice and acute spasmodic pain, and some symptoms of peritonitis. No gall-stones were discovered. This left him with impaired health and strength. He went abroad soon after, and in November had a recurrence of the disease in Vevay, Switzerland, so severe that for some time his life was despaired of. On his recovery, he went to England, and, under a course of Harrowgate waters, recovered his normal health and strength, which continued unabated until Dec. 30, 1870, when a recurrence of the trouble manifested itself. It not being convenient to see me, a small dose of chloral was prescribed by another physician, which gave him a comfortable night. The following day he drove to my office; was exceedingly irritable and depressed. Complained of pain in the region of the gall-bladder, which was manifestly enlarged. Conjunctivæ decidedly yellow. A wet cup was applied, a cathartic given, followed by an opiate and hot fomentations.

Jan. 1st, 2d and 3d.—The dull pain still continued, but not spasmodic or acute. The prominence very marked; skin hot and dry; pulse not much quickened; headache severe; thirst excessive; no nausea, except after taking cold water, which invariably caused severe pain.

Jan. 4th.—Intensely jaundiced. Had been delirious and unmanageable during the night.

Jan. 5th.—At the evening visit, found him exceedingly prostrated; pulse 148 and very feeble; fæces passing involuntarily. From this he soon rallied, under opium, whiskey and beef-tea.

Jan. 6th.—Was seen several times during the day, and in the evening was in every respect more comfortable, though his pulse was still quick. He improved rapidly until the following noon (the 7th), in which interval the bowels were moved naturally; the headache disappeared. The urinary secretion was very free and loaded with bile, the epigastric prominence had nearly subsided, and the jaundice almost gone. The pain now recurred slightly, which he attributed to a teaspoonful of tincture of rhubarb taken in the morning. Some relief was obtained from warm cloths, and between 2 and 3 he ate a small piece of mutton chop. At 5, the pain became severe, accompanied with restlessness. He slept for a short time, and remained quiet and free from pain until 10, when it became more severe, and the prominence was again perceptible. Being unable to sleep, at 1 he asked for an opium pill, but was given 20 grains of chloral instead. No sleep until 3, when he called for and used the urinal. He then went alone to the closet in which the chloral was kept, drew some water to rinse his mouth, and returning to bed said he would sleep, which he did. An hour later the nurse found him sleeping quietly. About 5 o'clock, she looked again, and found him dead. I attributed this unexpected result to one of three causes: thrombosis of pulmonary artery, an overdose of chloral, or perforation of gall-bladder. Thrombosis seemed improbable, for the reason that death was too tranquil and no difficulty in the respiration. Perforation

was more probable, but, though there had been for twelve hours more or less pain and restlessness, there was nothing of the sudden and acute pain which would be expected from the escape of bile into the peritoneum. I was therefore inclined to attribute it to chloral.

On the 2d of January, I prescribed four scruples of this in an ounce of ginger syrup, of which a teaspoonful was to be taken and repeated in half an hour if necessary. The following day, this being exhausted, of his own accord he directed the druggist to send six times the quantity. He continued its use another day or two, when, in view of his great prostration, and fearing his injudicious repetition of the dose, I substituted for it half grain opium pills. At this time the bottle was noticed to be more than half full, by measurement at least 26 drams. The only dose known to have been taken subsequently was the one of two teaspoonsful or twenty grains given as before stated four or five hours before death. On examining the bottle soon after, I found just ten drams remaining, leaving 14 drams or 140 grains unaccounted for. Whether he thoughtlessly took this quantity when he went to the closet at 3 o'clock to rinse his mouth, is uncertain.

A thorough post mortem being objected to, permission was obtained to make a sufficient incision to get at the gall-bladder. Old and firm adhesions from the previous attacks were found. No signs of recent lymph. The surface of the intestines was injected of a bright red, and the mesentery stained a dark brown. The gall-bladder unfortunately gave way through its thinned and softened portion in its removal. It was extensively ulcerated, and where attached to the liver was in one place completely destroyed, leaving a large opening into the substance of the organ nearly two inches in depth.

The circumstances connected with the chloral are certainly suspicious, but the diseased state of the gall-bladder, even if it were not the direct cause of his death, would doubtless have induced a fatal result sooner or later.

JAN. 9th. — *Ulceration of the Bowels, treated successfully by Injections of Solution of Nitrate of Silver.*—Dr. STORER reported the case.

On the 23d of August last, I visited a lady who gave me the following history of herself.

Previous to the 22d of February she had, for years, enjoyed uninterrupted health. On the evening of that day she was suddenly attacked with intense pain in the bowels, which could not be attributed to any assignable cause. Finding but little relief from such domestic remedies as were employed, the following evening she sent for a physician. At the expiration of three weeks from the commencement of her suffering, pus was discharged with the alvine evacuations; this increased in quantity, and was soon evacuated repeatedly during the day, not only with the fæcal matters, but independent of them, entirely by itself. This condition continued for several weeks, when a second physician was applied to, who, after visiting also for several weeks and finding no improvement in his patient, gradually ceased his attendance, and finally withdrew altogether.

Suffering severe pain during every evacuation from her bowels, with frequent purulent discharges during the twenty-four hours, having an actual disgust for all food, obtaining but little sleep, and that unrefreshing, having fallen in weight from 150 pounds to 102 pounds since February, she was induced to apply for further medical advice. It was evident to my mind that the woman was suffering from ulceration of the bowels, and with this indication I ordered an injection of sixteen grains of nitrate of silver to eight ounces of water. But slight inconvenience was produced by the remedy, and scarcely any perceptible relief. A second injection, after an interval of forty-eight hours, slightly checked the purulent discharge, and diminished the pain during defæcation. After the exhibition of six or eight injections, administered every third day, my patient expressed herself as much relieved in all respects. They were given for six or eight weeks, at intervals varying from three days to a week, as symptoms seemed to demand. Improvement has constantly followed the course pursued, save when there was a temporary negligence in diet and indigestible food has been taken. My patient visited me on the 3d instant. She tells me she has not perceived the slightest particle of pus for the past seven weeks, that her appetite is good, her sleep natural; that she has gained eighteen pounds, performs her usual household duties, and is perfectly well.

DEC. 28th.—*Cancer of Pylorus.*—Dr. BORLAND reported the case, under his charge at the City Hospital.

B. M., æt. 42, native of this city; pharmacist. First seen Dec. 5th, 1870. No hereditary tendencies to disease. Had intermittent fever in the West some 13 years ago, and with that exception has been per-

fectly well until commencement of present trouble. Temperate in habits. Since early in August has been subject to vomiting, at first after intervals of two or three weeks. Vomiting has steadily increased, and during latter half of November occurred every day or two. To use his own words, "when he got filled up he vomited." Never vomited any blood.

Has been costive since commencement of vomiting, and has used various laxative medicines, but never has kept bowels regularly open.

Constant and continued emaciation.

About middle of November noticed a tumor in epigastric and umbilical regions, to left of median line. Tumor continued slowly to increase until December 5th, when he entered the City Hospital.

When seen, patient was in bed. Is naturally a man of small stature, from 116 to 125 pounds in weight. Is very much emaciated, so as to be almost a living skeleton. There was a hard tumor in the abdomen, the size of a turkey's egg, to the left of the median line but bordering on it, and about midway between ensiform cartilage and umbilicus, but rather nearer the latter.

Tumor was movable, and pulsated with the abdominal aorta; the superficial skin was not adherent, and superficial veins not developed. Tumor rises and falls with acts of full inspiration. No tenderness about abdomen. Rest of abdomen much retracted. Pulsation of aorta distinct.

At first sight the tumor was thought to be malignant, and on account of the constant vomiting nutritive enemata were ordered, which were well retained. On the next day the tumor had disappeared, and the whole epigastrium was soft, distended, and tympanitic. A large enema of suds and oil was given, through a tube passed as high as possible up into the rectum, and followed by two foul copious dejections.

Nutritive enemata were well retained, and the patient seemed at first to improve, or at least held his own; the high enemata were repeated for several nights, always followed by a free dejection.

At various times lumps of fæcal matter could be felt in the colon. Ol. olivæ ℥i. was ordered on Dec. 10th (five days after entrance), with the intention of repeating it if well borne, but it was soon vomited.

About this time he began to take food by the mouth in very small quantities. On Dec. 14th, nine days after entrance, took half a pint of milk, and the next day a little more, and the next a little broth. Then he vomited a large quantity of liquid. He vomited in this way continually after intervals of two or three days.

On 17th, complained of pain, the only time since entrance, referred to lower part of right side of chest, immediately followed by vomiting of half a pint of fluid. He continued to fail gradually, and died on 19th, just two weeks after entrance.

Dr. Webber, who made the autopsy, said the stomach was distended with turbid fluid containing ingesta; it was adherent to the duodenum over a space of half an inch, and to the pancreas over a small extent; on the opposite side it was attached to the liver by very slight adhesions which, on gently raising the organ, broke and allowed the contents of the stomach to escape through an ulcerated opening at the centre of the adhesion. Just above the pyloric orifice, not quite reaching the valve and embracing more than three-quarters of the circumference, was a mass of disease three inches long by one and a half wide, of oval form, and evidently cancerous. Under the microscope the morbid growth showed alveolæ filled cells, and long plugs of cells resembling epithelial cells.

The other organs were not remarkable; the kidneys slightly granular; the lungs were more or less adherent to the parietes of the thorax; the apex of each contained a cheesy mass with a corresponding adhesion of the pleura.

Dr. Borland said certain peculiarities in the case rendered it at once interesting, and difficult if not impossible of diagnosis.

1. The absence of any tumor (except the fæcal matter), a symptom found in 75 per cent. of cases (Brinton and Lebert).

The position of the tumor after death was sufficient to account for this, as it was completely covered by the left lobe of the liver and held fast by adhesions.

2. The freedom from pain, a symptom present, according to Brinton, in 92 per cent. of his cases.

Only once while in the hospital did he complain of pain. After death more accurate inquiries in regard to this point were made. His friends stated that they had never heard him complain of pain, but the week before he entered the hospital an expression often passed over his face as if he suffered. Expressions of his countenance somewhat like the above were observed while in the hospital, but they were not considered indicative of pain. He generally slept well, and moreover was rather irritable, and one who would be likely to speak of any severe suffering.

The absence of this symptom seems the

more peculiar on account of the extensive ulceration and adhesions to neighboring parts.

3. The absence of hæmorrhage, present in nearly one half Brinton's cases.

There were therefore left the obstinate vomiting, constipation, and progressive emaciation, on which to form a diagnosis.

Dr. JACKSON said that for many years he had, from time to time, seen cases in which the disease very nearly surrounded the pyloric portion of the stomach, but left a healthy strip that connected the duodenum with the stomach, and along which the food might be carried forward. It is not the mucous membrane alone, but the whole thickness of the organ that is healthy; and it seems to be a remarkable provision of nature to aid the stomach in the performance of its functions, when the rest of the circumference of the organ is, by its disorganization, unable to propel its contents. One of the most remarkable examples he had met with is a specimen that is now in the Society's Cabinet, and the case was published in the Catalogue in 1847; there is deep and extensive cancerous ulceration in the pyloric portion of the organ, a perfectly healthy strip of parietes connecting the stomach and intestine, and upon each side of the strip, and along its whole length, a prominent cauliflower-like excrescence that seems evidently intended to have made the passage for the food more safe and complete, as it was carried forward.

Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 9, 1871.

CASES OF ZOSTER.

THE following two cases are translated from an article by Dr. Weidner in the *Berliner Klinische Wochenschrift*, July 4, 1870. They are interesting from the changes found in connection with the roots of the nerves. A third case of syphilitic origin, with spinal symptoms, is not translated, as no autopsy was made, the man recovering.

A woman, 69 years old, had enjoyed generally good health until her 64th year, when she had an apoplectic fit, losing consciousness for a short time, and having diminished power in the right arm. Since 65, she had had difficulty of breathing, which was increased during the winter, with frequent palpitation, and occasionally œdema of the legs.

On the evening of April 6, 1869, she was attacked suddenly with severe dyspnœa and burning pain in the left shoulder. Some time after (how long she could not certainly state), she noticed a large number of red blisters on that shoulder. At the same time, according to the report of her neighbors, her face and limbs were of a remarkable blue color.

April 8, 1869, she was received into hospital. She was poorly nourished, with a dirty yellow color of skin and conjunctiva, dilatation of the veins of the neck, and emphysematous chest. The apex beat was found in the sixth intercostal space, on a line with the anterior edge of the axilla (the heart's dulness reached the same distance), and a sensible systolic fremitus was noticed. To this corresponded a strong systolic murmur over the mitral, followed by a short, light diastolic one. On auscultation of the lungs, there was found on both sides at the base behind numerous mucous râles. On the left shoulder and left upper arm were numerous groups of blisters seated on a congested base, varying from clear yellow to dark brown in color, some isolated, some confluent, which were limited to the space included between the fold of skin formed by the trapezius above the second rib and the insertion of the deltoid in the arm on the side and front, by the spina scapulæ behind. The abdominal organs were normal. The temperature was 37; pulse, 80; respiration, 36. The urine was 1026, contained neither blood nor albumen.

During the patient's stay at the hospital the zoster eruption in part dried up, and in part left ulcerations, with considerable suppuration, which soon cicatrized. The difficulty of respiration diminished under the use of digitalis, but the cyanotic and icteric coloration remained in a remarkable degree. The veins of the neck, when the patient lay down, were swollen to the touch; at each inspiration, when the already scanty flow of blood to the brain was yet more impeded, the pupils dilated. The extremities were constantly cool, the temperature varying between 35·5 and 36·5; rose only once to

37·5. The pulse sank from 86 to 60 beats a minute, while the respiration decreased in frequency to 20. The blood was dark red; flowed from a needle prick more slowly than in health. The urine was diminished in quantity, but contained no blood or albumen.

May 4th, 9 o'clock, P.M., the patient had a chill; frequent and superficial respiration; small and rapid pulse (100); during the night many loose stools. Next morning occurred a more serious collapse. The percussion sound was shorter over the left back than the right; at the left base behind were crepitant râles; in front on the left at the height of the second rib were small mucous râles. Under increasing debility and dyspnœa, death followed at 6 o'clock in the evening, preceded by complete unconsciousness.

Post Mortem.—Enormous congestion of the vertebral venous plexus with dark fluid blood. Spinal dura mater somewhat stretched over the lumbar portion of the cord, its inner surface smooth and glistening; spinal arachnoid everywhere thin, containing the normal amount of fluid. The cord and the intervertebral ganglia showed no abnormal appearances, except a striking softness and paleness. The left lung contained air throughout. The right pulmonary artery contained a thrombus, adherent to its walls, which filled two thirds of its calibre and extended into the branches, some of which it entirely obstructed. The upper portion of the right pulmonary artery and the branch leading to the upper lobe contained dark, liquid blood. The upper lobe of the right lung contained little blood and was comparatively dry; also the lower lobe was relatively poor in blood, moderately filled with serum, everywhere containing air.

In the pericardial cavity were fully 200 cm. pale yellow liquid, with fine shreds of lymph. Enormous dilatation of the right ventricle, auricle and pulmonary artery, the circumference of the latter just above the valve being 10½ ctm. The branch to the right lung contained, united with its wall, a grayish yellow clot over one ctm. thick, with rough surface, clearly striated, which at its borders passed continuously into the inner lining, without abrupt edges. Tricuspid normal; right ostium venosum admitted four fingers. The columnæ carneæ of the right ventricle were nearly all surrounded with old, dark-brown and grayish-yellow clots. Left ventricle enlarged. The tendinous strings of the large folds of the bicuspid had increased to compact cords; moderate dulness, retraction and atheromatous thickening of the large important fold, and circumscribed rough concretion besides contraction along the border and the base of the small segment. The left ostium venosum admitted also four fingers; aortic valve sufficient, a large fold and concretions at its insertion; the aortic orifice easily admitted two fingers.

Prof. Müller had the kindness to make the microscopic examination.

"The spinal cord between the seventh cervical and the first thoracic nerves, the roots of the left seventh cervical, first and second thoracic nerves, the roots of the right first thoracic nerve and the ganglia of all these nerves were examined. The search for fatty nerve fibres on the fresh specimen was entirely negative in its result. The examination for increase of connective tissue cell elements in the ganglia was made on the hardened specimens. To harden the tissues, bichromate of potassa, and, later, alcohol were used.

"Section of the spinal cord, compared with that of another similar person, showed no change from the normal.

"The roots of the seventh cervical and of the second thoracic nerves and the anterior root of the first thoracic nerve on the left, the roots of the first thoracic nerve on the right, were normal. The sensitive root of the first thoracic nerve at its passage through the dura mater showed a small deposit of ellipsoidal bodies, 1 mm. long by 0·8 mm. wide. They were substituted for the neurilemma, and extended inwards, pressing asunder the nerve fibres. The deposit was formed of spindle-shaped, nucleated cells lying near each other, between which lay a number of round bodies, 0·1 mm. in diameter, formed of concentric layers, impregnated with carbonate and phosphate of lime. The primitive nerve fibres showed altogether uninjured axis cylinders.

"The size of the ganglia of the first tho-

racic nerve on both sides corresponded. This structure appeared the same by all the methods of examination. The primitive nerve fibres scattered in bundles, the ganglion cells 0·06 to 0·08 long, distributed in groups in the substance of the ganglion, with clear elliptical nucleus and large nucleolus; in the protoplasm a variable amount of brownish-yellow pigment; the single ganglion cells surrounded by a sheath 0·01 to 0·02 thick, formed of spindle-shaped connective tissue cells. The examination of the ganglia of a woman of the same age gave the same results.

"The *post mortem* completely verified the diagnosis in regard to the vertebral venous plexus. The microscopic examination showed, besides, on the posterior root of one of the nerves in whose course the zoster appeared, the above-mentioned histological changes."

In close connection with this case stands a second of Geh. Hofrath Gerhardt, in which a zoster in the region of the first branch of the trigeminus appeared in connection with pathological anatomical changes.

An aged scholar, who had suffered for many years from sciatica, had during some months a severe nervous toothache on the right side. Six months later, during a slight indisposition, he felt pricking sensations in his head on the right side between the vertex and the lambdoidal suture, especially at night, during four or five days. This sensation, after a pause of some minutes, returned regularly two or three times in rapid succession. Then the skin of the right side of his forehead became red and swollen over the space from the upper eyelid to 1½ centimetres in front of the lambdoidal suture. Upon the reddened surface, at first exactly limited to the middle line, there arose, even as low as the upper eyelid and the angle between the root of the nose and the superciliary arch, a large number of small blisters standing close together, confluent at their bases—a zoster in the region of the first branch of the trigeminal.

At the same time the lids of the right eye were swollen, secreted profusely; the eye became red, the iris faded and narrow. After the eruption of the blisters, the patient felt only burning on the affected spot, at no time headache. On the other hand, during the next few days appeared gastric symptoms, high fever, loss of sleep, restlessness and active delirium, which, first on the fourth day after the appearance of the zoster, yielded to returning health with a gradual diminution in the frequency of the pulse (from 92 to 64). The copious confluent zoster blisters, whose common base had slowly passed somewhat beyond the middle line, became turbid and in part, on the fifth day after the eruption, began to form crusts, while the swelling of the face disappeared.

On the 14th day after the commencement of the sickness appeared again, in connection with a severe neuralgia, redness and swelling of the right half of the face, especially the eyelid and lower jaw. The neuralgia reached, especially at night, a great intensity, and was increased by warmth. This time, also, there was fever, loss of appetite, and constipation; besides it was noticed that the last finger of the right hand was bluish and almost without feeling. After continuing a short time, the œdema of the face diminished and was confined to the upper lid of the right eye. The conjunctiva of this eye remained a short time hyperæmic, and there was a slight convergent strabismus. The painful decrustation of the zoster eruption which had previously commenced advanced during the next few days. The neuralgia, however, continued until the patient, after several light attacks of apoplexy, died five years later from catarrhal pneumonia.

Post mortem.—Calvaria moderately thin, and symmetrical. Dura mater pretty firmly adherent to the inner side, slightly thickened, internally smooth and shining. In the upper longitudinal sinus dark liquid blood with an insignificant clot, slight whitish dulness of the arachnoid along the median line, important pacchionian bodies. In the arachnoid cavity an increased amount of clear, light-yellow liquid; moderate amount of blood in pia mater. The anterior cerebral artery showed numerous circumscribed yellowish masses of atheroma. Convolutions symmetrical. Sulci widened. Consistence of brain moderately firm. Both substances containing a medium amount of

blood. Cortex and centrum semi-ovale, scattered over with many reddish-brown and black extravasations, punctiform, and the size of a pin's head. The latter region contained, besides, a number of round cavities, from the size of a pin's head to that of a cherry, filled with reddish-yellow clear liquid. The soft outer surface of the brain peeled off in places with the pia mater. Considerable atheromatous thickening of all the arteries of the base, the arachnoid turbid, the pia mater and the origin of the right trigeminal congested; the larger division of the nerve was smaller than the left, and immediately at its exit from the medulla oblongata was contracted as if from a cicatrix. The right trigeminal immediately at its entrance into the Gasserian ganglion was thinner than the left, and also seemed as if unravelled, having between the single bundles a reddish-yellow thickish liquid. No outwardly visible change on the surface of both crura cerebri. Slight dilatation of the lateral ventricle, ependyma smooth, in the cavity clear colorless liquid. Clearly marked état criblé of the large ganglia, many circumscribed dark brown punctiform hæmorrhages in the cortical substance of the left posterior lobe—in the middle of the outer periphery of the right lenticular nucleus.

An indented focus of softening about as large as a bean, surrounded by a yellowish, greatly congested capsule of connective tissue. A similar one, somewhat larger, under the cushion of the right optic thalamus. In the cerebellum, pons and medulla oblongata, except some insignificant circumscribed brownish or blackish extravasations, there was nothing remarkable. A cavity, the size of a walnut, in the apex of the left lung. The lateral wing of the bicuspid rather short; at its base a rich group, as large as a bean, of cock's-comb-like calcareous excrescence. Atheroma of aortic valve, and imperfect closure, with dilatation of the ascending aorta.

The microscopic examination of the Gasserian ganglion showed a rather large number of ganglion cells, of various sizes, with fine granular contents; some with clear and some with obscure nuclei. The ganglion cells had also at one of their poles brownish-yellow pigment, which was rather scanty in some and very abundant in others, so that it occupied two-thirds of the cell. They were enclosed in a connective tissue, which contained a great number of nuclei, which in one preparation contained cells filled with fat. Between the ganglion cells and the nerve fibres which were normal, were Hassal bodies.

Extract from a Letter from Dr. H. Pickering Bowditch to Dr. Henry I. Bowditch of this city. * * * * * * * * * * * * * * * "I have just returned from a visit of five weeks which I have been making in Munich, in order to hear Prof. Voit's lectures on the physiology of nutrition, a subject to which he has devoted his special attention for the last fifteen years. The lectures were admirable, and I learned a great deal while there, for Prof. Voit was very obliging in explaining to me his methods and showing me exactly how he made his various analyses. I had an opportunity of seeing Pettenkofer's great respiration apparatus, which he has lately adapted for performing calorimetrical experiments. The mode of experimenting is very simple and very ingenious. A wooden chamber, large enough to contain a man comfortably, is enclosed in a larger chamber with a considerable space between the walls. Air is continually drawn through the inner chamber by a steam pump and its amount measured by a gasometer. The temperature of the air is measured as it enters and as it leaves the inner chamber. Any increase of heat in passing through the chamber is of course due to the animal heat of the man contained in it. The amount of watery vapor added to the air by passing through the chamber is also determined. The amount of heat produced by the man during the time which the experiment lasts is equal to the amount necessary to heat the recorded quantity of air to the observed temperature, + the amount necessary to produce the observed quantity of watery vapor, + the amount lost by radiation and conduction in the apparatus. This last amount is determined by burning a given quantity of gas or candles (of which the combustion warmth is known) in the apparatus and noting how much of the heat which is known to be produced is recorded by the above method of experimenting. If the deficit is 20 per cent., for example, this is considered as the loss by radiation and conduction in the apparatus, and a similar loss is assumed in the experiments with animal heat. The correction is therefore easy to apply. Professor Pettenkofer read one evening at a meeting of a medical society a very interesting article on the cholera in India as reported by the English government agents, and brought forward additional proofs for his theory that a certain amount of water in the soil is a necessary condition for the development of the disease. If there is too much or too little water the disease is not developed.

Leipsic, January 15, 1871.

Medical Miscellany.

THE MASSACHUSETTS GENERAL HOSPITAL.—At the annual meeting of this corporation held a few days ago the following officers were elected for the ensuing year:—

President—Edward Wigglesworth.
Vice-president—Nathaniel Thayer.
Treasurer—J. Thomas Stevenson.
Secretary—Thomas B. Hall.
Trustees—James M. Beebe, Charles H. Dalton, Edmund Dwight, Samuel Eliot, George S. Hale, George Higginson, Henry B. Rogers, Samuel W. Swett.

AGES OF DECEASED MEMBERS OF THE MASSACHUSETTS MEDICAL SOCIETY.—A friend states the average duration of life of the 850 deceased members of the Society, whose ages are on record, to be 58¼ years.

THE MARINE HOSPITAL AT CHELSEA.—The report of the superintendent of this institution for the year 1870 has been made to the Secretary of the Treasury. The number of patients received at the hospital for the year 1870 was 795. On a reference to the books of the institution, it is found that this is far in excess of other recent years. In 1862 the number was 419; 1863, 555; 1864, 455; 1865, 552; 1866, 777; 1867, 718; 1868, 723; 1869, 709.

The number of patients at present in the institution is 104, among which Dr. Bancroft, the superintendent, mentions several as being cases of interest.

DISPENSING MEDICINES.—In the December number of the *Druggists' Circular* is a Communication calling the attention of physicians and druggists to the discrepancy between the strength of syrups, tinctures and infusions made from Wood and Bache's Dispensatory, and those made from fluid extracts by Tilden's formulas.

Now, it is not generally known by physicians that a large number of their prescriptions for these preparations are made up from fluid extracts, or extemporaneously made from private formulas; but such is the fact.

I will relate one instance of my own experience, which will more fully illustrate how we are imposed upon by those who ought to be above it.

Less than two years ago I took a prescription for infusum rhei. comp. to one of the oldest established stores in your city, and asked one of the proprietors how long it would take him to prepare it. He replied two or three minutes; but when I demurred, saying it was too short a time to have a good infusion, he replied, "Your physician may have told you it would take two or three hours; but Dr. So-and-so used to prescribe it, and we always keep it prepared, and the *older* an *infusion*, the *better*."

At the next store I went to, the clerk very kindly offered to make it up in two or three minutes from fluid extracts. It had been put up the day previous at another first-class store in a few minutes, by triturating some powder with hot water in a mortar, the clerk directing the person to "shake well and swallow dregs." And yet you are often told to take your prescriptions to these stores, when perhaps you may have to pass some half-dozen where you would be properly served, from the very fact that physicians do not frequent them enough to become familiar with their method of preparing and dispensing, and some they shun altogether. What is the remedy? Go in and familiarize yourselves with those who make and dispense the medicine; and if they are wrong, suggest the right, and then if they heed not, discard them.—B. F. CLOUGH, M.D., of Worcester, in *Boston Journal of Chemistry*.

NOTICE.—Will the unknown friend to whom we loaned the photographs representing the Histology of the Minute Bloodvessels, oblige us by returning them to this office.—ED.

TO CORRESPONDENTS.—Communications accepted:—A Case of Convulsions, with prolonged Tonic Spasms, in a Child of four Months, treated successfully with Hydrate of Chloral.—Pharmaceutical Legislation on the Sale of Poisons.

CORRECTIONS.—Page 61 of this volume, in the title of Editorial, for "Pruritis" read *Pruritus*.

Page 70, line 33, for "but, in all four cases, however, the incontinence was total," read *in all but four cases, however, the incontinence was total.*

DIED,—At East Randolph, 1st inst., T. E. Wood, M.D., aged 65.

Deaths in fifteen Cities and Towns of Massachusetts for the week ending Feb. 4, 1871.

Cities and Towns.	*No. of Deaths.*
Boston	93
Charlestown	7
Worcester	17
Lowell	21
Milford	3
Chelsea	4
Cambridge	13
Salem	7
Lawrence	10
Lynn	12
Fitchburg	4
Newburyport	8
Somerville	3
Fall River	10
Haverhill	2
	214

Prevalent Diseases.	
Consumption	42
Pneumonia	17
Scarlet fever	9
Croup and Diphtheria	5
Typhoid fever	6

Boston reports one death from smallpox.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 28th, 93. Males, 45; females, 48. Accident, 3—ankle, disease of, 1—apoplexy, 4—anæmia, 1—bronchitis, 6—brain, congestion of, 2; disease of, 1—burned, 1—cancer, 1—cyanosis, 2—canker, 1—consumption, 19—convulsions, 1—croup, 1—debility, 3—dropsy of brain, 5—diphtheria, 1—erysipelas, 1—exposure, 1—scarlet fever, 4—typhoid, 1—gangrene, 1—heart, disease of, 4—intemperance, 1—liver, disease of, 1—lungs, congestion of, 1; inflammation of, 4—marasmus, 1—neuralgia, 1—old age, 4—paralysis, 1—premature birth, 4—puerperal disease, 4—peritonitis, 1—smallpox, 1—synovitis, 1—suicide, 1—teething, 1—"vomiting," 1—unknown, 1.

Under 5 years of age, 35—between 5 and 20 years, 7—between 20 and 40 years, 25—between 40 and 60 years, 11—above 60 years, 14. Born in the United States, 73—Ireland, 13—other places, 7.